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The Vicious Circles of Control

Regional Governments and Insiders in Privatized Russian Enterprises

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In Russia and other transition economies that have implemented voucher privatization programs, how can one account for the puzzling behavior of insider-managers who, in stripping assets from the very firms they own, appear to be stealing from one pocket to fill the other?

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Summary findings

How can one account for the puzzling behavior of insider-managers who, in stripping assets from the very firms they own, appear to be stealing from one pocket to fill the other?

Desai and Goldberg suggest that such asset-stripping and failure to restructure are the consequences of interactions between insiders (manager-owners) and regional governments in a particular property rights regime. In this regime, the ability to realize value is limited by uncertainty and illiquidity, so managers have little incentive to increase value. As the central institutions that rule Russia have ceded their powers to the regions, regional governments have imposed various distortions on enterprises to protect local employment.

Prospective outsider-investors doubt they can acquire the control rights they need for restructuring firms and doubt they can avoid the distortions regional governments impose on the firms in which they might invest. The result: little restructuring and little new investment. And regional governments, knowing the

firms' taxable cash flows will have been reduced through cash flow diversion, have responded by collecting revenues in kind.

To disentangle these vicious circles of control, Desai and Goldberg propose a pilot for transforming ownership in insider-dominated firms through a system of simultaneous tax-debt-for-equity conversion and resale through competitive auctions.

The objective: to show regional governments, by example, that a more sustainable way to protect employment is to give managers incentives to increase enterprises' value by transferring effective control to investors.

The proposed mechanism would provide cash benefits to insiders who agree to sell control to outside investors. The increased cash revenue (rather than in-kind or money surrogates) would enable regional governments to finance safety nets for the unemployed and to promote other regional initiatives.

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The Vicious Circles of Control:
Regional Governments and Insiders in Privatized Russian Enterprises*

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I. INTRODUCTION

A centerpiece of Russia's real sector reforms—the privatization of 15,000 enterprises through vouchers—was to make the transition to a market credible, irreversible, and rapid. The objective of the mass privatization program (MPP) was to establish a critical mass of profit-seeking corporations, no longer dependent upon state support for their survival, and a class of owners willing to invest in their enterprises and manage their restructuring.¹ The Russian MPP, however, has brought few tangible benefits to enterprises privatized in voucher auctions. Ineffective corporate governance, little new investment, and the distortions of continuing government intervention have limited the amount of restructuring these firms could undertake in practice. A diverse constellation of indicators now suggests that, among firms in other transition countries of comparable wealth, Russian firms are ranked at the bottom in terms of output, factor productivity, profitability, and cost efficiency. Recent surveys of Russian industrial sectors, moreover, conclude that the policies of regional governments tend to favor low-productivity incumbents, protecting them from takeovers and more productive new entrants.²

In this paper we suggest that the absence of restructuring and investment are the consequences of interactions between insiders (manager-owners), and regional governments within a particular property rights system. Two inter-related features of this system are consequential to the Russian real-sector problem. First, regional governments still use enterprises to protect local employment. In the Russian regions, governments face a tradeoff between enforcing cash-based tax collections and maximizing tax revenues, on the one hand, and extracting "social" benefits in the form of excess employment on the other. If the managers-owners were to maximize the value of the firm, the firm would be left vulnerable to expropriatory policies that alter the net return on investment—e.g., restrictions on layoffs, costly regulations or tariffs, etc. Anticipating that, managers choose instead to maximize the private benefits of control, and no restructuring is accomplished. The regional governments, knowing that the taxable revenue of the firm will have been reduced as a result of cash-flow diversion, respond by collecting revenues in kind and enacting policies that force firms to maintain employment levels. These regional governments, then, are as "vested" in maintaining the status quo as are enterprise insiders, and will willingly shield insiders from takeover attempts, obstruct the enforcement of outsider's property rights, and perpetuate the

¹ Among the purported benefits of vouchers: "[T]o sever the links between the state and the enterprises, to school the population in market basics, and to foster further ownership change . . ." See, e.g., Cheryl W. Gray, "In Search of Owners: Privatization and Corporate Governance in Transition Economies," *World Bank Research Observer* 11, 2 (1996): 179-197.

² See, e.g., McKinsey & Co., *Unlocking Economic Growth in Russia* (Moscow: McKinsey Global Institute, 1999), which points out that Russia's labor productivity has fallen from 30% of the U.S. level in 1991 to 19% in 1997. Other surveys can be found in EBRD, *Transition Report 1998* (London: EBRD, 1999), p. 130; Simon Commander and Andrei Tolstopiatenko, "Enterprise Restructuring and the Structure of Compensation: Why is Unemployment Low in the FSU?" World Bank, 1996; John Earle and Saul Estrin, "After Voucher Privatization: The Structure of Corporate Ownership in Russian Manufacturing Industry," 1997.

enterprise as a source of private benefits for the manager, and as a source of social and political benefits for the region.

Second, control rights are not automatically granted along with ownership rights, due primarily to the unenforceability of investment contracts in the Russian economy. In this environment, outsiders-investors must choose whether to invest or not. In economies with fully enforceable property rights, investment decisions would be contractually (and therefore automatically) accompanied by the transfer of control rights. Where control rights and cash-flow rights are separable, the transfer of control becomes, to a large extent, a matter subject to considerable uncertainty and managerial discretion. Outsider-investors, therefore, have little confidence that they will achieve effective control despite of buying (nominal) majority stakes in the company, or that the regional governments will resist imposing distortions once the investment takes place.

This paper is organized as follows. Section two details the system of enterprise insider ownership that evolved as a result of the MPP. The third section examines the role of regional governments in using enterprises to protect employment and derive other benefits, and describes recent attempts by regional governments to reassert control over local enterprises. In the last section, we outline two related proposals for transferring ownership in Russian enterprises from insiders to external investors through cooperation between investors and regional governments: (i) investor-regional government initiated bankruptcy; and (ii) property rights enforcement through a simultaneous tax debt-for-equity swap and resale, which we term "Investment-Based Ownership Transformation."

We conclude that the first approach is not viable due to the onus placed on a weak and overloaded judicial system. The second approach, in our view, is more workable in the present Russian economy. This decentralized approach to transforming ownership will potentially accomplish the following reforms. First, by allowing coalitions of outsider-investors to acquire large share blocs, this approach creates the basis for improved corporate governance. Second, this approach allows participating enterprises to be reincarnated debt free. Third, this approach, if used alongside bankruptcy procedures, can promote much-needed contestability in the market for corporate control. Fourth, by providing regional governments a means of increasing revenue from cash taxation, rather than offsets and barter, it enables a much-needed restructuring of subnational public finances.

II. INSIDER CONTROL

Property rights over enterprises had already been allocated *de facto* during the Soviet era. Well before the collapse of the Soviet Union, state-enterprise directors benefited—even profited—from many of the rights associated with "ownership and the outcome of the privatization program adopted in 1992 reflected these pre-existing institutional constraints."³ Following the 1989 Law on State Enterprises entrepreneurial state-enterprise directors set up the numerous Gorbachev-era entities—cooperatives, collectives, and joint ventures—that fed off of large state enterprises. Article 7 of the law

³ See Michael McFaul, *State Power, Institutional Change, and the Politics of Privatization in Russia*, *World Politics* 47, 2 (1995): 210-243.

gave enterprise directors (and employees) in an enterprise the right to lease its assets; ultimately, these leased assets could be purchased at once or in installments through the cooperative or collective.⁴ Subsequent decrees in 1989 and 1990 on lease and leasing relations expanded the ability of employees to propose lease arrangements. Although leases were meant to be awarded on a competitive basis, no competitions were held in practice, and nearly all leases were awarded by enterprise insiders to themselves.⁵ Between 1991 and the end of 1992, the number of lease enterprises rose from 2,400 to almost 9,500.

The intent of the law, of course, was to decentralize the elaboration of annual plans. Indeed, at the time lease buy-outs were viewed by some as an embryonic form of privatization—one that, if regulated, might engender a smooth (stable, controlled) transition.⁶ They were, however, little more than profit-sharing arrangements for the management and employees. Buy-outs were often set up for arbitrage purposes—to secure inputs at subsidized prices, sell goods at uncontrolled prices, and pocket the difference. Directors thus reaped the benefits of their control rights while the costs and liabilities associated with ownership remained socialized.

When the Russian Privatization Law was passed in 1992, all lease enterprises whose agreements were entered into prior to the passage of the law were treated in a separate category of enterprise. In these circumstances, redemption was carried out as specified in the lease. But in an untold number of cases, the redemption terms were unclear or unspecified.⁷ In these situations, lease enterprises were privatized with other enterprises, but leaseholders were given a "priority" in purchasing shares. Thus the overlap between enterprises privatized by voucher, and enterprise that were part of the leasing program is difficult to estimate.

Unlike enterprise directors in countries such as Czechoslovakia and Poland, where SOE reform laws enabled the Communist Party to remove under-performing managers as late as 1989, the USSR had no such opportunity. Here, enterprise insiders—managers and employees—had both the incentive and the power to defend themselves against Yeltsin's attempts to reallocate property rights through rapid privatization. Workers, due to a paternalistic relationship under managers, the absence of labor markets, the lack of sectorally based trade unions, and the direct provision of social services by enterprises, did not constitute a distinctive group with interests opposed to management. On the contrary workers and managers were traditionally more or less

⁴ Leonid Grigoriev, "Ultior Property Rights and Privatization: Even God Cannot Change the Past," in Anders Xslund, ed., *The Post-Soviet Economy: Soviet and Western Perspectives* (London, Pinter, 1992), p. 200.

⁵ Roman Frydman, et al., *The Privatization Process in Russia, Ukraine, and the Baltic States* (London: CEU Press, 1993), pp. 20-22.

⁶ See Igor Filatotchev, Trevor Buck, and Mike Wright, "Privatization and Buy-Outs in the USSR," *Soviet Studies* 44, 2 (1992): 265-282.

⁷ Leases would run between five and fifteen years, and redemption clause simply allowed the lessor to purchase the property at the end of the term. But in many cases, the property sharing arrangements upon the conclusion of the lease were extremely vague—typically based on principles of self-government and worker participation, but leaving unspecified the governance structure of the enterprise.

united in their common struggle to bargain for lower production quotas.⁸ Consequently workers made no claims against property rights distinct from managers. Together, workers and managers constituted a pressure group, which dedicated itself towards ensuring that enterprise insiders received the numerous privileges that ultimately, made their way into the Russian MPP. As Gaidar himself later conceded, "Beginning in May and June [of 1992] it was impossible to stand up to the pressure of the industrial lobby."⁹ Thus it is that the designers of the Russian MPP confronted the following political reality: pre-existing institutional arrangements that distort free markets cannot be wiped clean by governmental fiat.

The scope and results of the MPP are well known and require little summary. A central difference between the MPP in Russia and similar programs in the Czech and Slovak Federal Republic and in Poland was in the tradability of Russian vouchers. Under the three variants of the Russian program, insiders could purchase up to 51% of enterprise shares. The tradability of vouchers, on the other hand, allowed insiders to purchase additional shares—65% on average.¹⁰ Tradable vouchers, then, may have turned out to be an instrument of insider control, rather than the intended means of consolidating outsider ownership.

Despite conflicting evidence on managerial turnover in the past year, there is general agreement that managers and salaried employees continue to hold approximately 50-60% of shares in privatized enterprises.¹¹ Estimates of ownership structure have varied across different enterprise surveys, which are difficult to compare over time. We present estimate ranges for stock ownership in privatized Russian enterprises below. It is interesting to note that the greatest variation tends to be for employees and managers as owners, perhaps reflecting the empirical (as well as theoretical) difficulties in separating the two.

Nevertheless, one of the critical shortcomings of the Russian MPP is that it did not enable an institutional concentration of ownership through financial intermediaries such as investment funds (as did the Czech and Polish programs)¹². The designers

⁸ See, e.g., John Willerton, *Patronage and Politics in the USSR* (Cambridge: Cambridge University Press, 1992); Michael McFaul, "Russian Centrism and Revolutionary Transformation," *Post-Soviet Affairs* 9 (1993).

⁹ "Gaidar v. Gaidar," *New Times* 17 (April 1993), p. 18. The "industrial lobby," in Gaidar's re-telling, consisted of the Russian Union of Industrialists and Entrepreneurs, its political affiliate the Civic Union, the Russian Assembly of Social Partnership (an umbrella trade union), and most importantly, the legislators in the Congress of People's Deputies.

¹⁰ Joseph Blasi and Andrei Shleifer, "Corporate Governance in Russia: an Initial Look," in Roman Frydman, et al., eds., *Corporate Governance in Central Europe and Russia* (London: CEU Press, 1996).

¹¹ Alexander Radygin, "Ownership and Control of Russian Industry," paper presented at the OECD-USAID Conference on Corporate Governance in Russia, Moscow, May 31-June 2, 1999.

¹² A critique (by one of the authors of this paper) of the Russian MPP that did not enable an institutional concentration of ownership through financial intermediaries such as investment funds can be found in: Goldberg, I., G. Jedrzejczak, and M. Fuchs, The "IPO-PLUS" A New Approach to Privatization, Policy Research Working Paper 1821, The World Bank, Washington, D.C., August 1997. This paper presents an alternative model of privatization, whose feature is a built-in mechanism of initial share concentration in

believed that consolidation would occur spontaneously as the investment funds, acquiring vouchers from employees, would use them to gain sufficient blocs in privatized enterprises. The table below shows limited evidence of that happening in the past five years—mainly attributable to the increasing acquisitions by Russian holding companies and industrial groups after 1994.

Even in those enterprises in which management-held shares are nominally in the minority, managers have at their disposal a variety of techniques by which their *de facto* control exceeds their nominal share ownership. Where “outsider” shareholders were fragmented, control was effectively ceded to managers. Employees were the largest category of shareholder in most enterprise put through the MPP, yet many of their shares are non-voting. In addition, managers have often taken to imposing (illegally) bans on the selling of shares to outsiders, placing limits on share ownership, and using implicit threats (dismissal, wage cuts, limitations on access to social assets) on workers who violate these rules. Faced with the prospect of takeovers, managers typically issued new shares (also often illegally) in order to dilute the power of outsiders.

Table 1: Estimates of Ownership in Russian Enterprises, 1994-1999¹³
(% of Share Capital)

	1994	1995	1996	1997	1999 ¹
<i>Employees</i>	44-56	39-49	26-43	23-40	36
<i>Managers</i>	9-17	10-17	12-18	12-36	15
<i>Domestic Legal Entities²</i>	7-11	20-23	23-25	22-24	23
<i>Domestic Individuals</i>	3-6	9-11	8-12	11-13	16
<i>Foreign Owners</i>	1-2	1-2	1-2	4-5	8
<i>State Agencies</i>	12-20	11-13	9-11	7-14	3

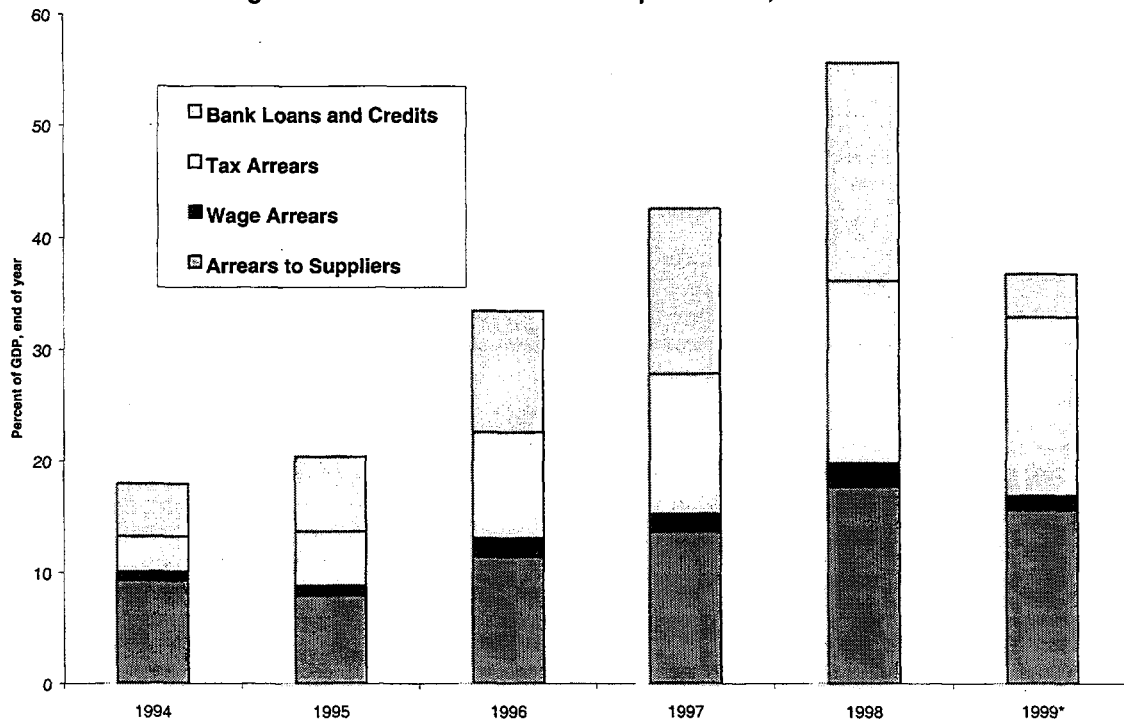
1. No survey undertaken in 1998.

2. Includes investment funds, all other firms (including holding companies and financial-industrial groups), and banks.

private investment funds. Similar critique by the same author is mentioned in John Nellis, “Time to Rethink Privatization,” *Finance and Development* 36, 2 (1999): 16-19.

¹³ Estimates vary considerably depending on when, during the course of the year, the survey was taken, and on the sample size. Figure ranges are taken from the following: for 1994, Blasi and Shleifer, “Corporate Governance in Russia,” Radygin, “The Russian Model of Mass Privatization: Governmental Policy and First Results,” in *Privatization, Conversion, and Enterprise Reform in Russia* (Boulder, Col.: Westview, 1995); for 1995, Blasi, “Corporate Ownership and Corporate Governance in the Russian Federation,” in Ira Lieberman, Stilpon Nestor, and Raj Desai, eds. *Between State and Market: Mass Privatization in Transition Economies* (Washington, D.C./Paris: World Bank/OECD, 1997), Radygin, “Securities Market Development and its Relationship to Corporate Governance,” paper presented at OECD conference on Capital Markets, 1996; for 1996: Blasi *et al*, *Kremlin Capitalism: Privatizing the Russian Economy* (Ithaca, N.Y.: Cornell University Press, 1997), Radygin, S. Aukutsionek, *et al.*, “Dominant Shareholders and Performance of Industrial Enterprises,” *Russian Economic Barometer* 1 (1998): 8-41, Institute for Economies in Transition, *Annual Report 1996* (Moscow: IET Press, 1996); for 1997: Simeon Djankov, “Business as Unusual,” World Bank, 1998; data from IET; 1999 figures are from Radygin, “Ownership and Control of Russian Industry.”

Figure 1: Structure of Russian Enterprise Debts, 1994-1999



Source: *Russian Economic Trends*

* As of March, 1999

Meanwhile, although the fiscal situation of the Russian government has been actually improving since early 1998, the enterprise sector has remained in a low-investment, low-productivity trap. Large enterprises have been able to build up significant wage, supplier, and tax arrears, while bartering whatever goods they did produce in their place. According to *Goskomstat's* own figures, by mid 1999, overdue accounts receivables on enterprise balance sheets amounted to 40% of GDP, while barter reached approximately one-half of all industrial sales.¹⁴ The evolution of different arrears can be seen in figure 1 above, which shows the composition of the main enterprise liabilities for four sectors (industry, agriculture, construction, and transport). Figure 2 below illustrates the rise in overdue liabilities and receivables as percentages of their respective totals. Meanwhile total enterprise receivables and payables (represented by the dashed lines) have more than doubled as a share of GDP between 1995 and 1998. Most firms have resorted to arrears as a source of trade credit at a time when the volume of bank credit has been shrinking. Moreover, the growing gap between payables and receivables indicates the increasing indebtedness of these four sectors to other sectors in the economy, mainly to the utilities (Gasprom and UES).

¹⁴ *Russian Economic Barometer and Russian Economic Trends*. World Bank, "Dismantling Russia's Nonpayments System: Creating Conditions for Growth" 1999.

Why Insiders Do Not Maximize Value

Every system of corporate governance is a structure of control rights such that suppliers of finance assure themselves that their investment will not be squandered by those to whom it is entrusted. In the classic agency perspective, agency costs arise from (i) monitoring expenditures by the principals; (ii) resources spent by insiders to guarantee to outside shareholders that shirking shall be limited, or “bonding” expenditures by the agents; and (iii) the “residual loss,” or the reduction in the value of the firm that obtains when the owner dilutes his ownership stake.¹⁵ Firms that are owned by managers and salaried employees, from this perspective, should face smaller agency costs of corporate control than those held by outsiders. There should be no need for a governance system in enterprises wholly owned by those who initiate and implement decisions, provide the financing, and bear the residual risks (and returns) associated with those decisions. Thus we are faced with having to account for the puzzling behavior of insider-managers in Russia—as well as other post-socialist environments in which privatized firms are insider dominated—who, in stripping assets from the very firms they own, appear to be stealing from one pocket to fill the other.

The central problem of corporate governance in Russia, however, does not involve the protection of minority shareholders or other financiers. Here, manager-owners do not face sufficient incentives to restructure the firm and maximize its value over the long run for three possible reasons. First, due to the problems of property rights delineation, manager-owners perceive title as uncertain and temporary, potentially subject to expropriation. With short time horizons, then, their expected gain from increasing value and share appreciation or dividends is typically less than the value of stripped assets. Second, maximizing value is a reasonable long term objective only if value can be realized. The confidence of managers-owners that if they increase value it can be realized by selling their shares is limited: as will be described below, insider control is so entrenched that an outside investor has little confidence that he will be able to take control of the firm even if he buys a significant share. Given this illiquidity of secondary markets, managers have little incentive to increase value and might instead sell the *actual assets themselves* as a way of alienating their control rights. Third, since in many cases the managers do not have formal claim to shares of *employees* (although they control their voting rights), distribution of dividends and realization of capital gains creates the potential for severe conflicts between employees and managers. Barter allows an opaque income accounting to hide income from employees (as well as from the authorities), as we discuss below.

Asset Stripping and Diversion of Cash Flows

While the original rationale for quick privatization was to prevent asset stripping by managers in SOEs, manager-owners have significantly degraded enterprise assets ever since. Instead of increasing a firm value through reinvestment, enterprise managers-owners have typically extracted income streams from these firms at the expense of

¹⁵ As ownership is diluted greater managerial discretion implies a loss to profits that is responsible for the residual loss. See Michael Jensen and William Meckling, “Theory of the Firm: Managerial Behavior, Agency Costs, and Capital Structure,” *Journal of Financial Economics* 3 (1976): 305-60; for an alternative perspective, see Oliver Williamson, “Corporate Finance and Corporate Governance,” *Journal of Finance* 43 (1988): 567-591.

minority shareholders. The managers have diverted cash flows to offshore accounts and shell corporations, concentrated losses among subsidiaries held by outsiders (rather than evenly distributing them between insider-owned holding company and subsidiary), and by delaying the payment of dividends. Since dividends are taxable and have to be shared with other stockholders, managers-owners are more inclined to withdraw cash flows from their enterprises through fictitious expenses or theft.¹⁶

Efforts to halt or limit this kind of asset degradation—through enhanced supervisory powers of the Federal Commission on the Securities Market, or through the empowerment of the anti-monopoly office—have, in recent years, been successfully blocked by a coalition of enterprise insiders and regional governments, together with their allies in the Duma. These beneficiaries of “partial reform” have effectively frozen in place the rents (and the opportunities for theft) generated by distortions in the Russian economy, namely, the absence of further reforms of the property rights and corporate governance regime.¹⁷ It has been suggested that enterprises in the interim period between corporatization and privatization are the most prone to asset stripping. In the Russian economy, however, one of the notable pathologies of the control of insiders and Regional Governments over enterprises is that asset stripping and cash flow diversions occur under private ownership.

Insider Control and Barter

While tax arrears constitute subsidies by regional governments to firms, there is reason to believe that non-cash settlements, however, are driven by insider control. The Russian system of taxation and payments (e.g. freezing of bank accounts) has been frequently cited as a key rationale for barter.¹⁸ If this explanation were true, Russia, in this sense, would have been something of an anomaly. Excessive and arbitrary taxation in middle income countries, while likely to promote financial disintermediation (cash being less traceable than bank transfers and checks) does not *necessarily* prompt barter. In Russia, as the State Tax Service has taken to deducting tax payments directly from ruble bank accounts of debtor companies, these same firms have used offshore banking whenever cash transactions have been necessary.

Our analysis, by contrast, leads to an additional explanation for the prominence of barter in the Russian economy, namely, that barter is a consequence of corporate governance failures. In this sense, barter is both a means of avoiding the payment of private or public debts in cash *and* a way of concealing the real state of affairs not only from tax authorities, but from minority shareholders (and indeed, even “passive

¹⁶ Itzhak Goldberg and Raj Desai, “Corporate Governance in Russia,” in Harry Broadman, ed., *Russia’s Enterprise Reforms*, World Bank Discussion Paper 400, The World Bank, Washington, D.C., 1998.

¹⁷ Joel Hellman, “Winners Take All: The Politics of Partial Reform in Post Communist Transition”, *World Politics* 50, 2 (1998): 203–234.

¹⁸ See, for example Kathryn Hendley, Barry Ickes, and Randy Ryterman, “Remonetizing the Russian Economy,” in Harry Broadman, ed., *Russian Enterprise Reform: Policies to Further the Transition* (Washington, D.C.: World Bank, 1999); Simon Commander and Christian Mumssen, “Understanding Barter in Russia,” Working Paper 37, EBRD, London, December 1998; Clifford Gaddy and Barry Ickes, “Beyond a Bailout: Russia’s Virtual Economy,” *Foreign Affairs* (September-October, 1998).

"shareholders such as employees. Non-cash settlements also enable manager-owners to degrade assets in a less transparent environment.¹⁹

Non-cash transactions, therefore, are an instrument by which manager-owners hide transactions from employees and from outsiders—both minority shareholders and tax authorities. Those who argue that changes in enterprise ownership will have no effect until hard budget constraints and payments discipline are ensured have the sequence reversed. In the Russian economy, both non-payment and barter—in addition to allowing non-viable enterprises to remain in operation—are used by enterprise insiders to preserve their power through opaqueness and fraud. Payments discipline cannot be improved unless there are, in parallel, significant changes in the incentives of managers-owners and regional governments.

III. REGIONAL GOVERNMENTS AND ENTERPRISE CONTROL

Although the Russian federal government has perhaps long since given up attempts to intervene in company management, regional governments have continued to exert a strong influence over the actions of key enterprises, regardless of whether they have been formally privatized. Indeed, the unwillingness of regional governments to draw sharp distinctions between public and private property, or to impose hard budget constraints on large enterprises, both from fear of unemployment and to preserve rent-seeking opportunities for vested interests is another key factor in the un-enforceability of property rights and ownership. As the central organs of the Russian state have lost their powers of regulation and control to the regions, regional administrations have seized these powers in a bid to maintain economic operations of major local enterprises, as well as to protect the local workforce from economic change. One recent study concludes that the devolution of economic control to the regions has preserved the sub-national administrative and hierarchical structures of the Soviet system, as well as the power and influence of those who manage them.²⁰

Attempts by regional governments to protect employment by preventing firms from changing production lines or employment levels constitute a significant distortion on enterprise operations. Anticipating such distortions, managers have often engaged in a "pre-emptive" diversion of cash flows (see appendix). In certain regions, moreover, (especially in one-company towns) the nexus of interdependence between government officials and enterprise management typically grants management quasi-governmental powers, including influence over the law-executing and law-enforcing apparatus in a given locality, making the enforcement of shareholder rights difficult—despite a panoply

¹⁹ In a typical scheme, for example, managers could transfer assets from company A in which minority shareholders have a stake to company B (e.g., a management-controlled pocket company) in which they do not in the following way. Managers of A require A to sell some output to B at a controlled price. B pays A in goods rather than in cash, then sells the output on domestic or international markets at normal prices. Under these conditions, managers are able to turn A into a cost center and B into a profit center as in a normal case of transfer pricing. But the addition of inter-firm barter without the premium allows managers to hide A's true cost of production, and to exaggerate the amount transferred to B.

²⁰ Richard Ericson, "The Post-Soviet Russian Economic System: An Industrial Feudalism?" SITE Working Paper 140, Stockholm, 1999.

of recent legislation intended to protect shareholders (*Law on Joint-Stock Companies*, Jan. 1996; *Privatization Law*, July 1997). In those cases where there is significant residual shareholding by the state, there is often tacit cooperation between governmental representatives on supervisory boards and management opposed to takeovers, to the consolidation of outsider ownership, or to the enforcement of ownership prerogatives of outsiders. These, of course, are long-standing allegations for which systematic evidence is difficult to marshal. Several incidents of managerial obstruction, foot-dragging, and non-compliance have been detailed.²¹

Tax Arrears and Offsets as Subsidies

For the largest Russian enterprises, tax payments have been bargained *ex post*. Tax payments with goods and through the use of offsets have allowed firms to economize on cash payments to tax authorities. Domestically, these firms have been driven further into the barter economy to avoid leaving a cash trail for the state to pick up. Since the Regional Governments have been unwilling to enforce the liquidation of insolvent firms, profitable companies as well are encouraged to masquerade as bankrupt ones. Thus both profitable and insolvent Russian firms have incentives to avoid taxes.

The fact that goods used to pay taxes may not have an immediate use constitutes an implicit subsidy granted by the tax collector to the firm, and may explain their increasing use among regional governments interested in maintaining employment levels and the social benefits that firms grant employees. Moreover, bartered goods, in-kind payments, and promissory notes are usually greater in price than their cash equivalents²². Pricing non-cash instruments at a premium can serve as an implicit subsidy. Tax authorities issuing tax offset notes are often complicit with inflated pricing since it enables the state, similarly, to increase its revenues. The managers are interested in inflating revenues as it magnifies the perceived "size" of the enterprise, which may prove useful as the firm bargains with regional governments.

Regional Governments and Enterprise Restructuring

Incumbent-managers of loss-making enterprises may have given up on the long-term route of deriving wealth through increasing the value of the enterprise. Selling their shares is a limited option because of the costliness of exchanging ownership rights in the Russian economy. While the rational short-term strategy of the managers-owners is asset stripping, then, the longer-run strategy is under-utilization of the remaining assets, barter and accumulation of arrears, in order to maintain employment levels in their regions. This last incentive, additionally, explains the liberal forbearance granted by tax authorities—regional and federal—towards enforcing tax debt collection from these

²¹ Juliet Johnson, "Russia's Emerging Financial-Industrial Groups," *Post-Soviet Affairs* 13, 4 (1997): 333-365; Bernard Black, Reiner Kraakman, and Anna Tarasova, "Russian Privatization and Corporate Governance: What Went Wrong?" (mimeo, 1999).

²² According to Commander and Mumssen (1998, p. 18), in addition, the fact that goods used to pay taxes may not have an immediate use constitutes an implicit subsidy granted by the tax collector to the firm.

firms. Eventually, the enterprise may be viewed as an instrument of social policy in a particular region, as well as a real-estate bequest to the heirs of the manager-owners.²³

Regional governments now actively obstruct enterprise restructuring via the perpetuation of soft budget constraints, and in some cases through formal limitations on enterprise activities. Subsidies can take the form of preferential tax treatment, implicit regionally-channeled subsidies through "discounts" on utility bills, and favored status in public procurement, all of which are intended to prevent companies from shutting down and laying off employees. This puts potentially productive companies at a cost disadvantage, blocking investments and growth on their part.²⁴

More directly, regional and municipal governments may effectively ban companies from laying off excess workers. Local authorities have the means to discipline disobedient managers by, for example, subjecting them to troublesome fire, safety, health and other inspections.²⁵

Renationalization by Regional Governments

Regional and municipal governments have also re-asserted property rights claims in the wake of the August crisis. Since mid 1998, de facto renationalizations of previously privatized property have taken place among several well-known corporations. The Belgorod iron-ore combine, Alkar Aluminum in Sverdlovsk, Krasnoyarsky Metalurgichesky Zavod, Mikhailovsky Iron Works, Tatneft, Kamaz, Avtovaz, Zil, and Moskvitch all underwent partial renationalization by the end of 1998. In 1999, further takeovers have occurred in Sverdlovsk, Ulyanovsk, Krasnoyarsk, Voronezh, Primorye, Chelyabinsk, and Moscow.²⁶ In oil producing regions, shares of several oil companies found their way into regional governments or regional government-owned companies—including Komineft (Yamalo-Nenetsky), and ANKH (Irkutsk). First, several "regional investment vehicles" under the protection of local governments have been set up in order to consolidate regional government holdings in important local industries. In some cases these are simply regional government-owned holding companies, which may have attempted to increase their shares through a capital increase. In other cases the regional

²³ Without a property tax on unutilised property, offset against positive profits tax for profitable enterprises, there are few disincentives to hold enterprise real estate for this purpose.

²⁴ MGI reports the case of obsolete (sub-scale and/or inefficient in their use of energy) steel and cement plants avoiding shutdowns by paying for only a fraction of their energy bills—their largest cost component. Because these companies are often the major employers in a town, municipal and regional officials go to great lengths to keep them operating. Regional governments channel implicit federal energy subsidies to these companies by letting arrears to federal suppliers (Gazprom and UES) accumulate at the local gas and electricity distribution companies. These energy distribution companies are often under effective control of the regional governments, making their bankruptcy practically impossible. These subsidies slow down recovery in many manufacturing sectors by preventing upgrading investments and industry consolidation in and around viable industrial assets.

²⁵ The Novgorod region of Russia is a rare positive example of what can be done in today's Russia by regional governments. It managed to attract more foreign direct investment than almost any other Russian region, including nearby St. Petersburg, by removing red tape, facilitating access to land and offering tax holidays to investors. As a result, the region has enjoyed economic growth since 1995, and over half of industrial output is now coming from productive foreign companies.

²⁶ Ericson, "The Post-Soviet Economic System," p. 10.

governments have restructured debts owned by corporations by converting those debts into equity. Second, companies have invoked a 1996 Presidential Decree on wage and tax arrears, repaying their tax debts to regional and federal budgets by issuing new stocks. In one case—YUKOS—newly issued shares wound up in the hands of a private owner (in this case, the Menatep Group), and the revenues from those shares were transferred to the budget. In all other cases, however, government shares have increased in companies under this arrangement.²⁷

IV. PROPOSALS FOR OWNERSHIP TRANSFORMATION

Our aim, in the following section, is to reexamine some policy options to disentangle the vicious circles of control discussed in sections II and III. We propose a pilot for transforming ownership in insider-dominated firms through a system of simultaneous tax debt-for-equity conversion and resale through competitive auctions. The objective of this pilot is to demonstrate by example to regional governments and to insiders that a more sustainable way of protecting employment lies in providing managers with incentives to increase the value of their enterprises. The proposed mechanism provides cash benefits to insiders who agree to sell control to outside investors. The increased taxes will allow the regional governments to finance safety nets to protect the unemployed and other regional initiatives.

Option I: Bankruptcy and Creditor-Based Ownership Transformation

Two fundamental changes to Russian bankruptcy procedures were put in place following the passage of the 1998 *Bankruptcy Act*. First, the law removed the requirement of the previous law that courts undertake independent valuations of debtors' assets and liabilities in order to determine whether a debtor was insolvent. Regional courts often refused to base insolvency on cash flows (basing them on net worth instead) thus preventing creditors from being paid. Second, creditors faced no incentives to cooperate in their petitions against a debtor, resulting in coordination problems. The new law bases insolvency on cash flows, i.e., an inability to service debts over a prescribed period. In addition, the new law requires a creditor's committee to implement interim management of an insolvent firm, and share in court costs.

Ownership transformation, therefore, is far more likely under the new bankruptcy rules than under the old. Any creditor (including a government authority owned tax debts) can initiate a bankruptcy petition against a delinquent firm. Under the terms of the law, an external manager is appointed (by a committee of creditors) who attempts to resolve all debt obligations. If an out-of-court settlement ("amicable agreement") is reached one of two outcomes are possible. Either creditors acquire ownership, or an interested external investor agrees to purchase the debts owed all creditors in order to acquire ownership. Without an amicable agreement, if the court declares the debtor bankrupt, competitive proceedings are initiated. In this last stage, a liquidator is appointed to take possession of a debtor's assets and distribute claims from their sale *pari passu* to the creditors.

²⁷ Radygin, "Ownership and Control of Russian Industry," 1999.

In practice, however, there are three critical problems in relying upon bankruptcy procedures to initiate ownership transformation. First, given the requirement of creditor coordination, it is impossible to ensure that an investor can take ownership of a bankrupt firm. It is the creditors who are given equity shares *pro rata*, and it is the creditors must agree to a sale to a third party. Bankruptcy is collective in nature, therefore all creditors must share costs of the bankruptcy proceedings, and all must agree on external management and other matters. Second, ownership transformation based on bankruptcies will ultimately rely on court procedures and on the capacity of the judicial system to ensure success. These are significant burdens to entrust to an already over-loaded system. Third, bankruptcy is a disruptive and often lengthy process, and if an amicable agreement is not forthcoming, may encourage the antipathy of regional authorities opposed to bankrupting a company in order to change ownership. Despite these problems, however, bankruptcy remains an important route once liquidators and judges are trained and well paid. The credible *threat of bankruptcy* is needed to motivate managers to agree to option II.

Option II: Investment-Based Ownership Transformation (IBOT)

Given the entrenchment of insiders in Russian enterprises, and given the small likelihood that bankruptcy rules will encourage changes in ownership, IBOT of Russian enterprises should be seriously considered as an alternative. The objective behind such a move would be to create new majority owners by converting tax debt into equity *that would be sold immediately to external investors in competitive auctions*. These converted shares, along with residual shares owned by governmental authorities, would constitute significant percentages of share capital in several cases. For reasons of manageability, it may be more feasible, in the short term, to concentrate on the IBOT of enterprises with significant tax debts to regional governments. The pitfalls of such an approach, including the problems of obtaining credible commitments by regional authorities to re-sell converted shares, are both complex and variable.

There are two major pitfalls, which need to be addressed if this scheme is to be further contemplated: one is what may be termed “investor capture,” and the second, “governmental capture.” The risk of *investor capture* is simply that IBOT will, once again, open the door to rent-seeking by current enterprise insiders eager to expand their control over productive assets in the Russian economy. As with the loans-for-shares program, IBOT will encourage investors with well-hidden connections to the enterprise to submit inflated bids, restricting competition for corporate control. On the other hand, *governmental capture* will occur if IBOT results in the renationalization of private enterprises. Piecemeal IBOT—by which a governmental body converts tax debts into shares, then awaits an acceptable investor—can also encourage governmental administrators to restrict bidding to favored parties, or to otherwise bias the auction in the interim.

This proposal assumes a pool of privatized companies in which typically the managers and the employees combined own a plurality of voting shares, while the residual is in the hands of the federal and/or regional government. Let us assume the company is viable in the long run but loss making and illiquid in the short run. It has also run up significant tax arrears. The local government holds most of the bad debts and threatens

the enterprise with a bankruptcy petition. The process should be managed by a local “investment company”, using the takeover model described in the case study (see box).

Engineering a Takeover: The Case of an Investment Company

The XYZ Company had been privatized through variant II of the MPP and the managers and the employees combined eventually accumulated close to 85% of the shares of the company. On behalf of an investor, Troika Dialog, a Moscow-based Investment Company needed to obtain more than 75% the XYZ Company before an investor would be willing to invest in the reconstruction and modernization of XYZ's facilities. Renting out a room in the factory in which to organize the purchase operation, a team of Troika Dialog experts trained to execute on-site share purchasing mandates, organized and executed the purchase of shares from the workers during the work day.

Manager and Worker Opposition

When talks between the investor and XYZ commenced, workers' representatives expressed strong opposition to "outside" intervention in the company's activities. Employees' most commonly expressed fear, naturally, was that of being summarily laid off by the new owners. In addition, many workers understandably lacked basic knowledge of what corporate equity represents. This naiveté generated rumors that the offered bid was too low or sellers would miss out on colossal future dividends. Many workers even believed that they could not be fired while holding equity in XYZ. The challenge was to respond effectively to workers' concerns. Educating workers on the acquisition proceedings often quelled fears, but not always, as employees were accustomed to a stark difference between promises and reality. Even on the management level, good intentions were sometimes misunderstood. For example, the investor decided to take some of XYZ's top management to visit a similar plant in Europe. The motivation was to provide the factory managers and opportunities to witness first-hand the Investor's corporate operations, culture and philosophy. Instead of being impressed by the efficiency of the operation, however, XYZ managers noted that the factory in Europe employed only 300 workers (well under XYZ's number), and immediately feared their work force would be downsized, thus re-igniting opposition. In the end, the investor gained acceptance only through a pledge not to significantly reduce employment levels for two years.

The Regional Government

Regional governments possess a significant influence over the business of privatized enterprises: they control access to inputs, transportation and enjoy tremendous discretion in granting licenses and permits. The strategy of the investor for approaching an acquisition in Russia was to initiate discussions first with target-factory directors, to determine potential interest. This tactic was based on their previous experience of an attempted joint venture, which, after having been cleared at the federal and then local levels, was rejected by plant directors. After initial contacts with senior management, the investor approached local officials with their plans. Upon learning that they had not been courted first, the administration, both on the city and regional level, felt snubbed. Prior experience with investors had left a bitter aftertaste, and, as such, the administrations were determined to retain control of the process. Troika Dialog and the investor made numerous conciliatory visits before the administrative apparatus warmed to their intentions.

Source: Troika Dialogue

Foreign consultancies and investment banks have had, in many cases, limited success in sustaining enterprise restructuring in the former Soviet Republics. Therefore, under this proposal, other options should be explored: e.g., strengthening local consulting companies; establishing new consulting/advisory companies; forming restructuring teams workout units of local banks, developing restructuring/workout teams in investment

funds, etc. Such schemes will presumably develop local skills and invest in people that will be interested in restructuring and workout "career paths."²⁸

Consideration of the risks mentioned above—capture by "venal" investors or by governmental authorities—implies that any transaction aimed at restructuring ownership must comply with two requirements. First, as mentioned above, newly acquired equity must be *simultaneously* sold to external investors. The partial renationalizations detailed in the previous section occurred where shares acquired by governmental agencies were not sold—either because of an unwillingness to relinquish control, or because no "suitable" investor could be found. Second, resulting share packets (comprising of converted debt and residual shares) must be sold by means involving some degree of competition among prospective investors. Competitive auctions in which bidders must meet certain minimum standards, in this case, would be the optimal solution.

These requirements, therefore, pose a central dilemma for an ownership transformation mechanism. Simultaneous conversion and sale, on the one hand, can only be accomplished if there is *a priori* investor interest in the share purchase. But if investor interest is needed before the conversion takes place, it will preclude a competitive auction. How, then, can these requirements be reconciled? Given the experience of privatization in Russia we will not attempt to offer a general solution but rather suggest a pilot model to be financed by international financial institutions.

The components of the IBOT model are:

1. A regional government receives a technical assistance/ institutional building loan from a multilateral donor to hire an investment brokerage. The investment brokerage selects a "pool" of companies based on the following criteria: (i) basic viability (ii) minimum tax arrears; and (iii) an agreement between the regional tax authorities and the management-owners to dilute the latter's share in ownership in exchange for part of the proceeds from the transaction. The regional government interested in collecting revenue from overdue and un-collectible arrears, "convinces" management, *under threat of bankruptcy*, to accept the dilution.
2. The regional government, according to the procurement rules of the multilateral lender, conducts an open tender to select an investment brokerage, in effect, to "re-privatize" the selected pool of companies. The formula for compensation of the investment brokerage is based on a fixed fee that covers expenses of valuing the whole pool, in addition to a success fee for each company successfully resold.
3. The selected investment brokerage conducts a tender for the sale of selected companies. The value of these companies will provide a benchmark tax-debt-to-

²⁸ In a restructuring project financed by the World Bank in Moldova, over 300 consultants and entrepreneurs have been trained, of which over a 100 are now working in the private sector. In a Bank project in Georgia over 70 people have been trained of which 5-6 have already left for the private sector. Similar results have been achieved in Lithuania through a PHARE/World Bank supported enterprise-restructuring agency Consulta Ltd. Recently, the Enterprise Institutional Building Bureau in Uzbekistan has been active in restructuring and selling stakes in medium scale partially privatized enterprises. (It sold six SMEs to foreign investors for a total amount of US\$ 2.1 million in one year).

equity conversion rate and the bids will, in effect, represent the market valuation of this rate (see balance sheets below).

4. The investment brokerage, as part of the sale of the enterprise shares, will assist in the conversion process of the outstanding tax debts to equity. The conversion would take place only as part of the transaction.
5. Given the layoffs likely following the IBOT, such a scheme should be supported by a compensatory program to assist the unemployed and to reduce their dependence on enterprise-based social resources. (e.g. severance pay program financed by an IFI)

Suppose the market value of the firm is V , the minimum equity stake desired by the prospective buyer α , the total tax debt outstanding T , and the debt-to-equity conversion factor c , and α and $c = [0,1]$. The buyer pays αV , and will receive α percent of shares, $(1 - \alpha)V$ worth of shares being left with the incumbent shareholders. The tax authority will be forced to revalue its tax “assets” downward by $(1 - c)T$. Finally, there remains the crucial question of the utility to the incumbent majority shareholders, since their agreement will be required before any IBOT can proceed. Since the tax authority is selling cT worth of shares to the new buyer, the residual $\alpha V - cT$ represents a “payoff” to the insiders for accepting the dilution of their shares.

A numerical example of the balance sheet restructuring of such transaction will illustrate: let us assume that a company, whose book value is \$50 million, is sold for \$30 million in a competitive tender. For simplicity, assume that its only liabilities are tax debts and shareholder equity, and that the company is 100% manager-owned.²⁹ The investor considers that acquiring 60% is the minimum stake required for control sufficient to carry out restructuring. Under the new share-capital structure, therefore, the outsider should own \$18m and the insiders \$12m. The tax debts of \$45 m are converted to, e.g., shares worth \$15 m (a 1:3 ratio) to be sold to the outsider and the proceeds are transferred to the tax authority. A residual of \$3 m will be paid to the insiders in exchange for their acquiescence in the dilution of their shares (from 100% to 40%).

Before Ownership Transformation (\$ millions)

Assets	50	Tax Arrears	45
		Insider Equity (100%)	5
Total	50	Total	50

²⁹ Normally, an enterprise with outstanding tax debts would not have positive shareholders equity, as that equity would be written down against outstanding claims. We are trying, however, to approximate (albeit crudely) the situation in some Russian firms where unpaid tax debts continue to be listed on the liabilities side, before any write-downs against shareholders’ capital. If such a write-down occurred, creditors (tax authorities) would become new owners—something we are trying to avoid. Thus we propose a mechanism that allows new investors to, in effect, buy off those debts, then convert them into equity claims.

After Ownership Transformation (\$millions)

Assets	50	Tax Arrears	0
Written Down	-20	Outsider Equity	18
		Insider Equity	12
Total	30	Total	30

Implementation Issues

For explanation, we have made certain assumptions regarding the IBOT transaction that do not necessarily hold in the Russian context. In this section we drop some of these assumptions in order to determine the “robustness” of our method.

Conversion of Debts

In our example, all debts are held with tax authorities; we have left out liabilities to: suppliers, lenders, and labor. Most important are the arrears of the companies to the local gas and power distribution companies, which are often controlled by regional governments. In principle, all of these liabilities could be converted to equity and auctioned in a similar fashion, with the proceeds from sale being divided among all the claimants *pro rata*. The control of local governments over suppliers – mainly the distribution companies – could help coping with the creditors’ coordination problem, referred to above in the discussion of bankruptcy. It is advisable that all claims are converted and sold simultaneously, in order to avoid the unintentional dilution of a buyer’s expected ownership. We have also avoided distinguishing between levels of government. Although a large proportion of total tax arrears is currently held with the federal government, the collection probability of these is lower than that of the debts to the regional governments. The IBOT will have to include agreements between the federal and regional creditors about offsetting these debts as part of the fiscal relationship between the two.

Dilution of Ownership

In our example, all equity is held with insiders. This is rarely the case in most Russian firms, where formal control rights of insiders are 50-60%, the remainder being held by other legal entities, individuals, and the state. We do not distinguish between insider and outsider incumbents, and in our example above, *all incumbent shareholders* would see their ownership diluted by IBOT. Again, there is no reason in principle that the “pay-off” ($\alpha V - cT$) cannot be distributed among all incumbent shareholders—including the state—*pro rata*.

A Pilot

A pilot could start with 1-2 cases of “voluntary liquidation” of companies with significant tax arrears in order to: (i) make the threat of liquidation/bankruptcy credible; (ii) train the trustees; and (iii) prepare for transparent auctions of saleable assets. At the same time the first group of local consultants will be receiving on-the-job training from an internationally procured group of consultants (restructuring/workout/investment companies) in few enterprises for which there is a realistic chance of obtaining outside investment.

Alternatively, the pilot could use equity funds as a potential shortcut both to finding the first company as well as the first investor. Through this route one could

sacrifice broad-based competition in order to get a deal done quickly, but initially the goal should be speed in completing one deal. Also, just because one party refers a candidate company does not mean that the bidding will not be open and competitive. The EBRD's Russian regional venture funds, therefore, could be helpful in the initiating the pilot.

Conclusion

The recent debates on the continuing Russian economic crisis, in general, have been devoid of concrete policy solutions. The proposition that conventional liberal reform will in the long run provide universal benefits will not be sufficient to persuade vested interests that have acquired control over the political process to change the status quo. The central challenge lies in building constituencies for reform by supporting new private firms and reform-oriented regional governments so that they can lobby, persuade or otherwise circumvent the coalitions that support existing economic distortions.³⁰ In the short run a reasonable course of action is to move ahead with tender-based privatization, while promoting an investment-based ownership transformation scheme along the lines espoused in this paper—in cooperation with multilateral development institutions—in the hope of producing some success stories to emulate.

It is clear that the critical role that regional governments play in limiting enterprise restructuring in Russia can no longer be ignored. Neither should one disregard, however, the potentially positive role the regions could play in reviving real-sector growth, were they to commit credibly to limiting the use of firms for income redistribution. It is necessary to demonstrate by example that that a more sustainable way of protecting employment lies in providing managers with incentives to increase the value of their enterprises and attract outside investment. The increased taxes will allow the regional governments to finance safety nets to protect employees and other regional initiatives. The proposals in this paper are intended to be a step in this direction.

³⁰ There is, in sum, a need to challenge incumbent owners on multiple fronts: to offer new products, open trade, and stimulate the market for corporate control. See, e.g., EBRD, *Transition Report 1999* (London: 1999), p. 114.

APPENDIX

A Game-Theoretic Perspective on Regional Governments, Manager-Owners, and Cash-Flow Diversion

In this section we provide a simple, preliminary model of the interaction between the managers-owners, described in section II and the regional governments described in section III. The objective is to analyze the response of managers to a distortion imposed by a regional government and to hypothesize whether the IBOT could help alleviate some of the “cooperation failures” identified in this model. As in previous work on the subject of firm-government interactions, the model focuses on enterprises subject to political distortions and describes a game between politicians and managers.³¹ We assume that the relationship between firms and politicians is governed by incomplete contracts in which the politicians derive a political benefit $B(L)$ from the excess labor L employed by the firm. We introduce the possibility of cash-flow diversion by the managers-owners, and derive implications of interactions between regional governments and enterprise managers-owners.

Instead of the classic case a firm with a large number of shareholders and a manager, however, we consider the case of a firm that is 100% owned by insiders. In choosing to undertake restructuring, insiders must secure minimum financing from outside investors, and offer in exchange a minimum equity stake in the firm. In order to approximate Russian cases more closely, we also assume that both existing cash flows and any extra profits from restructuring are subject to theft or diversion by insiders. Specifically, we assume that manager-owners obtain private benefits $B(v)$, where v is the proportion of cash flows diverted from returns on existing assets or new investment. Suppose further that enterprise managers can decide the portion v of cash flows from earnings π to be diverted for private benefit and they believe that the private benefit of the diverted cash flow is higher than the legitimate net profits, $B(v) > (1-t)\pi$.

Regional governments are capable of imposing the following distortion on firms in their regions: through law, regulation, or intimidation, regional governments can force firms to employ excess or unneeded labor L in the firm, i.e., workers in excess of what it takes to produce output efficiently, such that, in the extreme, all the profits π from production are wiped out. The government derives greater political benefit than the total wage cost of the excess workers: $B(L) > wL$. Regional governments derive revenue from a tax rate t imposed on firm's net profits, i.e. less the amount diverted before taxes by the manager. Added to the tax revenue is the political benefit of L , $B(L)$, and deducted is the possible cost of having to pay a share of the excess wage bill, vwL . We interact the excess wage bill with the cash-flow diversion ratio v , since if $v=1$, i.e. all profits are diverted and nothing is left to pay L , the burden will have to be borne by the regional government. Under these assumptions, the utility of the regional government is:

$$U_R = t(1-v)\pi - vwL + B_R(L) \quad (1)$$

³¹ See esp. Andrei Shleifer and Robert Vishny, “Politicians and Firms,” *Quarterly Journal of Economics* 111, 4 (1994): 995-1025.

$$L_{Max} = \frac{\pi}{w}$$

The maximum value of L that can be imposed upon the firm is its pre-tax profits π divided by the wage rate, w . That is, the regional government can impose a level of excess labor L such that all of the firm's pre-tax earnings are wiped out.³² In addition to net profits (taxable income is net of diverted cash flows and less wages paid to excess workers), the managers-owners also enjoy private benefits of cash-flow diversion, given by $B(v)$. The utility function of the manager, then, is

$$U_M = (1-t)[(1-v)\pi - wL] + B_M(v) \quad (3)$$

We can define the following two-period interaction between a regional government and a privatized manager-owned firm: in the first period, the manager decides what portion of cash flows should be diverted, while in the second the regional government decides the excess-labor distortion to impose upon the firm. Both manager and regional politician face certain tradeoffs, depending upon which variables are allowed to be endogenously chosen. If the manager can determine the level of v , and thus determines the value of the firm, given π , he faces a trade off between value maximization and private benefits, $B(v)$. Similarly, if regional governments can determine the excess labor L , for a given tax rate, then it, too, faces a tradeoff between maximizing revenues and maximizing the political benefits from excess labor.

Payoffs to Manager and Region in Strategic Form

			Regional Government	
			Revenue maximization $L=0$	Employment distortion $L=L_{Max}$
Firm Management	Value maximization	$v=0$	(i)	(ii)
			$P_M: (1-t)\pi$ $P_R: t\pi$	$S_M: -t\pi$ $D_R: t\pi + B(L)$
	Cash-flow diversion	$v=1$	(iii)	(iv)
			$D_M: B(v)$ $S_R: 0$	$N_M: B(v) - (1-t)\pi$ $N_R: B(L) - wL$

If this game were played once, then the game has a unique subgame-perfect equilibrium: given that the manager has made a choice, the regional government would simply impose $L = L_{Max}$, and take all of the firm's earnings. Anticipating that, the firm would choose $v=1$ in order to leave as little as possible for the regional government to expropriate via excess employment and taxes. Note that this is not a Pareto optimal situation for either player, since both can be made better off by altering this institutional

³² Thus we see from the condition $B(L) > wL$, that $B(L_{Max}) > \pi$.

arrangement such that the regional government resists using firms as sources of political benefits and the manager-owners do not divert cash-flows.

The payoffs in single-play are given in strategic form above. Cell (i) is the Pareto efficient outcome for both, where no distortions are imposed on the firm, and no cash flows are diverted. Both regional government and the manager, however, have strong incentives to defect from this arrangement. If the regional government defects while the manager continues cooperation, the firm will see its profits lost in wages to excess workers, while the region receives benefits from that employment (cell ii). If the manager defects and the regional government does not, the manager can wipe out any revenues going to the region's treasury while receiving private benefits from diverted cash flows (cell iii). With rational foresight, neither player cooperates, and both receive the Nash payoffs in cell (iv). The condition $D > P > N > S$ suggests a classic single-play prisoner's dilemma in which the "defect" strategy strictly dominates for each player. In sum, since the regional government cannot credibly commit to tying its hands, the firm manager chooses to divert cash flows, and benefit privately.

Can IBOT Change the Incentives of the Players?

The managers now become agents of an outside investor, who spends resources on monitoring their performance. Let us assume that after IBOT the outsider owns 100% of the shares and thus, absent the threat of government expropriation, the new owner would have demanded that the managers eliminate cash-flow diversion v , since by definition v accrues to managers and no one else. This makes a commitment by firms to lower v more credible for the government.

IBOT requires managers to relinquish private benefits of control in the next period of play, and to reduce their cash-flow rights. For the regional government, IBOT requires that the political benefits of employment be foregone in the next period, while reducing the cost of excess labor to be borne by the government if the managers diverted all the cash flow and could not pay the extra workers. Upon playing the IBOT strategy, more importantly, the continuation value of cooperating in subsequent periods increases. If the regional government, following IBOT, begins to re-impose politically-motivated distortions, then it risks losing cash tax payments (which were not forthcoming before IBOT). The new owners, following IBOT, have fewer incentives to divert cash flows because they do not have the opportunities enjoyed by the insider-owners in the previous game.

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